

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lifson, A. Group Art Unit: 3744  
Serial No.: 09/921,334 Examiner: Norman, Marc E.  
Filed: August 03, 2001  
For: PULSED FLOW FOR CAPACITY CONTROL  
Original Filing Date: December 8, 1997  
Original Patent No: 6,047,556  
Granted: April 11, 2000

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Assistant Commissioner for Patents  
Box REISSUE  
Washington, D.C. 20231

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SUPPLEMENTAL REISSUE DECLARATION TRANSMITTAL

In view of recent Federal Circuit case law (*Dethmers Mfg. Co. v. Automatic Equip. Mfg. Co.*, 272 F.3d 1365, 60 U.S.P.Q.2D 1929 (Fed. Cir. 2001)), Applicant submits this supplemental reissue declaration. The supplemental reissue declaration and attached exhibit point out the differences between the original claims and the reissue claims as originally filed and the differences between the original claims and the allowed reissue claims.

Applicant believes that no examination of the supplemental reissue declaration is necessary. Applicant respectfully requests entry of the supplemental reissue declaration in the case.

Respectfully submitted,  
Lifson, Alexander



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6 March 2003  
Date

original reissue claim 18, wherein the valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to original reissue claim 24, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system having a refrigerant flow line, comprising: a compressor housing comprising a compression chamber, at least one refrigerant injection port operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge port operative to pass compressed refrigerant from the compression chamber; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a solenoid valve operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 25, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 24, wherein the solenoid valve is disposed in a refrigerant flow line upstream with respect to refrigerant flow to said at least one refrigerant injection port. Such error arose without deceptive intent.

With reference to original reissue claim 26, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 24, wherein the solenoid valve is mounted to the compressor housing at the refrigerant injection port. Such error arose without deceptive intent.<sup>2</sup>

With reference to original reissue claim 27, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 24, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

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<sup>2</sup> Original reissue claim 26 was cancelled, without prejudice to Applicant's right to pursue the subject matter of those claims in continuation, reissue, reexamination or other applications related or unrelated to this application, in the Supplemental Response filed on September 17, 2002.

With reference to original reissue claim 28, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 24, wherein the solenoid valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to original reissue claim 29, Applicant failed to claim a capacity modulated compressor comprising a compressor having a suction inlet for supplying suction gas to the compressor; a valve provided in the suction gas flow path to the compressor, the valve being operable between open and closed positions to cyclically allow and prevent flow of suction gas into the compressor; a controller for actuating the valve between the open and closed positions, the controller being operative to cycle the valve such that its cycle time is shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 30, Applicant failed to claim a capacity modulated compressor in accordance with original reissue claim 29, wherein the valve is positioned in close proximity to the compressor. Such error arose without deceptive intent.

With reference to original reissue claim 31, Applicant failed to claim a capacity modulated compressor in accordance with original reissue claim 29, wherein the valve is a bi-directional valve. Such error arose without deceptive intent.

With reference to original reissue claim 32, Applicant failed to claim a capacity modulated compressor in accordance with original reissue claim 29, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to original reissue claim 33, Applicant failed to claim a method of modulating the capacity of a compressor in an air conditioning or refrigeration system, comprising cycling a valve, in fluid communication with the compressor, using a cycle time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 34, Applicant failed to claim a method in accordance with original reissue claim 33, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to original reissue claim 35, Applicant failed to claim a method of modulating the capacity of a compressor in a closed refrigerant circulating system, said compressor comprising a compression chamber having a port connected to a refrigerant line of the system through which refrigerant is supplied to the compression chamber, comprising: rapidly cycling a solenoid valve disposed in the refrigerant line upstream of said port between its fully open position and its fully closed position to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 36, Applicant failed to claim a method in accordance with original reissue claim 35, wherein rapidly cycling said solenoid valve comprises cycling the solenoid valve with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 37, Applicant failed to claim a method in accordance with original reissue claim 35, wherein said cycling controls the percentage of time said solenoid valve is fully open to refrigerant flow therethrough to the compression chamber. Such error arose without deceptive intent.

With reference to original reissue claim 38, Applicant failed to claim a method in accordance with original reissue claim 35, wherein said cycling is controlled by a microprocessor. Such error arose without deceptive intent.

Each of allowed reissue claims 1-3 is the same as original patent claims 1-3, respectively. Applicant has not made any amendments to any of allowed reissue claims 1-3.

With reference to allowed reissue claim 4, Applicant failed to claim an air conditioning or refrigeration system comprising an evaporator; a compressor; a

refrigeration fluid suction line from the evaporator to the compressor; and a suction line valve, in the refrigeration fluid suction line, being cyclable between open and closed positions, the suction line valve in the closed position in normal operation preventing refrigeration fluid flow to the compressor other than optionally permitting a limited refrigeration fluid flow through the suction line valve to prevent vacuum pump operation, the suction line valve operative to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 5, Applicant failed to claim an air conditioning or refrigeration system in accordance with allowed reissue claim 4 further comprising a capacity controller operative to generate a control signal corresponding to desired capacity modulation and operatively connected to the valve to send capacity control signals to cycle the valve with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 6, Applicant failed to claim an air conditioning or refrigeration system in accordance with allowed reissue claim 4, wherein the valve is cycled between a fully open and a fully closed position. Such error arose without deceptive intent.

With reference to allowed reissue claim 7, Applicant failed to claim an air conditioning or refrigeration system of allowed reissue claim 5, wherein the controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to allowed reissue claim 8, Applicant failed to claim an air conditioning or refrigeration system in accordance with allowed reissue claim 4, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 9, Applicant failed to claim an air conditioning or refrigeration system comprising an evaporator; a compressor; a refrigeration fluid suction line from the evaporator to the compressor, the refrigeration fluid suction line operative to carry refrigeration fluid from the evaporator to the compressor; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a suction line valve, in the refrigeration fluid suction

line, operatively connected to the controller to receive capacity control signals from the controller and being cyclable between open and closed positions, the suction line valve in the closed position in normal operation preventing refrigeration fluid flow to the compressor other than optionally permitting a limited flow through the suction line valve to prevent vacuum pump operation, the suction line valve operative in response to capacity control signals received from the controller to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 10, Applicant failed to claim a system in accordance with allowed reissue claim 9, wherein the valve is cycled between a fully open position and a fully closed position. Such error arose without deceptive intent.

With reference to allowed reissue claim 11, Applicant failed to claim a system in accordance with allowed reissue claim 9, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to allowed reissue claim 12, Applicant failed to claim a system in accordance with allowed reissue claim 9, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 13, Applicant failed to claim a system in accordance with allowed reissue claim 10, wherein the valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to allowed reissue claim 14, Applicant failed to claim an air conditioning or refrigeration system comprising an evaporator; a compressor; a refrigeration fluid suction line from the evaporator to the compressor, the refrigeration fluid suction line operative to carry refrigeration fluid from the evaporator to the compressor; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a solenoid valve, in the refrigeration fluid suction line, operatively connected to the controller to receive capacity control signals from the controller and being cyclable between open and closed positions, the solenoid valve in the closed position in normal operation preventing refrigeration fluid flow to the

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compressor other than optionally permitting a limited flow through the solenoid valve to prevent vacuum pump operation, the solenoid valve operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 15, Applicant failed to claim a system in accordance with allowed reissue claim 14, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to allowed reissue claim 16, Applicant failed to claim a system in accordance with allowed reissue claim 14, wherein the solenoid valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to allowed reissue claim 17, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system comprising a compressor housing comprising a compression chamber, a refrigeration fluid suction line operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge line operative to pass compressed refrigerant from the compression chamber; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a suction line valve, in the refrigeration fluid suction line, operatively connected to the controller to receive capacity control signals from the controller and being cyclable between open and closed positions, the suction line valve in the closed position in normal operation preventing refrigeration fluid flow to the compression chamber other than optionally permitting a limited flow through the suction line valve to prevent vacuum pump operation, the suction line valve operative in response to capacity control signals received from the controller to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 18, Applicant failed to claim a compressor in accordance with allowed reissue claim 17, wherein the valve is cycled between a fully closed position and a fully open position.

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With reference to allowed reissue claim 19, Applicant failed to claim a compressor in accordance with allowed reissue claim 17, wherein the valve is disposed in a refrigerant flow line upstream with respect to refrigerant flow to said at least one refrigerant injection port.

With reference to allowed reissue claim 21, Applicant failed to claim a compressor in accordance with allowed reissue claim 17, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to allowed reissue claim 22, Applicant failed to claim a compressor in accordance with allowed reissue claim 17, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 23, Applicant failed to claim a compressor in accordance with allowed reissue claim 18, wherein the valve in the fully closed position. Such error arose without deceptive intent.

With reference to allowed reissue claim 24, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system comprising a compressor housing comprising a compression chamber, at least one refrigerant suction line operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge line operative to pass compressed refrigerant from the compression chamber; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a solenoid valve, in the refrigeration fluid suction line, operatively connected to the controller to receive capacity control signals from the controller and being cyclable between open and closed positions, the solenoid valve in the closed position in normal operation preventing refrigeration fluid flow to the compression chamber other than optionally permitting a limited flow through the solenoid valve to prevent vacuum pump operation, the solenoid valve operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 25, Applicant failed to claim a compressor in accordance with allowed reissue claim 24, wherein the solenoid valve is

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disposed in a refrigerant flow line upstream with respect to refrigerant flow to said at least one refrigerant injection port. Such error arose without deceptive intent.

With reference to allowed reissue claim 27, Applicant failed to claim a compressor in accordance with allowed reissue claim 24, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to allowed reissue claim 28, Applicant failed to claim a compressor in accordance with allowed reissue claim 24, wherein the solenoid valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to allowed reissue claim 29, Applicant failed to claim a capacity modulated compressor comprising a compressor having a refrigeration fluid suction line for supplying refrigeration fluid to the compressor; a suction line valve provided in the suction line to the compressor, the suction line valve being operable between open and closed positions to cyclically allow and prevent flow of refrigeration fluid into the compressor, the suction line valve in the closed position in normal operation preventing refrigeration fluid flow to the compression chamber other than optionally permitting a limited refrigeration fluid flow through the suction line valve to prevent vacuum pump operation; a controller for actuating the suction line valve between the open and closed positions, the controller being operative to cycle the suction line valve such that its cycle time is shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 30, Applicant failed to claim a capacity modulated compressor in accordance with allowed reissue claim 29, wherein the valve is positioned in close proximity to the compressor. Such error arose without deceptive intent.

With reference to allowed reissue claim 31, Applicant failed to claim a capacity modulated compressor in accordance with allowed reissue claim 29, wherein the valve is a bi-directional valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 32, Applicant failed to claim a capacity modulated compressor in accordance with allowed reissue claim 29, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 33, Applicant failed to claim a method of modulating the capacity of a compressor in an air conditioning or refrigeration system, comprising cycling a suction line valve, in fluid communication with the compressor, using a cycle time shorter than the response time of the system to modulate compressor capacity, the suction line valve being operable between open and closed positions to cyclically allow and prevent flow of refrigeration fluid into the compressor, the suction line valve in the closed position in normal operation preventing refrigeration fluid flow to the compression chamber other than optionally permitting a limited refrigeration fluid flow through the suction line valve to prevent vacuum pump operation. Such error arose without deceptive intent.

With reference to allowed reissue claim 34, Applicant failed to claim a method in accordance with allowed reissue claim 33, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to allowed reissue claim 35, Applicant failed to claim a method of modulating the capacity of a compressor in a closed refrigerant circulating system, said compressor comprising a compression chamber in fluid communication with a refrigerant suction line of the system through which refrigerant fluid is supplied to the compression chamber, comprising rapidly cycling a solenoid valve, disposed in the refrigerant suction line upstream of said compression chamber, between its fully open position and its fully closed position to modulate compressor capacity, the solenoid valve in the closed position in normal operation preventing refrigeration fluid flow to the compression chamber other than optionally permitting a limited refrigeration fluid flow through the solenoid valve to prevent vacuum pump operation. Such error arose without deceptive intent.

With reference to allowed reissue claim 36, Applicant failed to claim a method in accordance with allowed reissue claim 35, wherein rapidly cycling said solenoid valve comprises cycling the solenoid valve with a cycling time shorter than the response time

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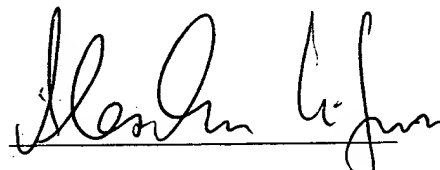
of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to allowed reissue claim 37, Applicant failed to claim a method in accordance with allowed reissue claim 35, wherein said cycling controls the percentage of time said solenoid valve is fully open to refrigerant flow therethrough to the compression chamber. Such error arose without deceptive intent.

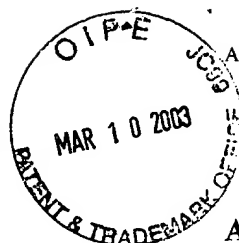
With reference to allowed reissue claim 38, Applicant failed to claim a method in accordance with allowed reissue claim 35, wherein said cycling is controlled by a microprocessor. Such error arose without deceptive intent.

(iii) All statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: February 26/2003

  
Alexander Lifson

# ATTACHMENT A



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicant:** Lifson, A. **Group Art Unit:** 3744  
**Serial No.:** 09/921,334 **Examiner:** Norman, Marc E.  
**Filed:** August 03, 2001  
**For:** PULSED FLOW FOR CAPACITY CONTROL  
**Original Filing Date:** December 8, 1997  
**Original Patent No:** 6,047,556  
**Granted:** April 11, 2000

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**SUPPLEMENTAL DECLARATION FOR REISSUE APPLICATION**

I, Alexander Lifson, the sole inventor of the subject matter of the above-captioned reissue application, hereby declares that:

(i) This supplemental declaration is being filed to complete the requirements for the above-captioned reissue application, in accordance with 37 C.F.R. 1.175(b)(1).

(ii) Every error in the patent which was corrected in the present reissue application, and which is not covered by the prior oath(s) and/or declaration(s) submitted in this application, arose without any deceptive intent on the part of the Applicant.

(iii) I verily believe that the original patent was wholly or partly inoperative or invalid, because I failed to claim inventive methods and apparatus disclosed in the specification. In particular, I failed to claim inventive methods and apparatus directed to

(1) modulation of the capacity of a compressor or of an air conditioning or refrigeration system by cycling a controlled valve with a cycle time shorter than the response time of the system; and/or (2) modulation of the capacity of a compressor or of an air conditioning or refrigeration system by cycling a controlled valve between its fully open position and its fully closed position.

More particularly, while reissue claims 4-38, as originally filed and as allowed, each may overlap in some measure or may be generic to the scope of content of one or more of the original patent claims of U.S. 6,047,556, nonetheless each claim differs therefrom in that it defines an invention of different scope or content. Each difference is set forth in Attachment A hereto.

Each of original reissue claims 1-3 is the same as original patent claims 1-3, respectively. Applicant has not made any amendments to any of original reissue claims 1-3. Thus, original reissue claims 1-3 and allowed reissue claims 1-3

With reference to original reissue claim 4, Applicant failed to claim an air conditioning or refrigeration system comprising: a compressor having a refrigeration fluid suction port and a refrigeration fluid discharge port; and a valve, in fluid communication with the compressor, operative to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 5, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim of claim 4, further comprising a capacity controller operative to generate a control signal corresponding to desired capacity modulation and operatively connected to the valve to send capacity control signals to cycle the valve with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 6, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 4 wherein

the valve is cycled between a fully open and a fully closed position. Such error arose without deceptive intent.

With reference to original reissue claim 7, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 5, wherein the controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to original reissue claim 8, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 4 wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to original reissue claim 9, Applicant failed to claim an air conditioning or refrigeration system comprising a compressor having a refrigeration fluid suction port and a refrigeration fluid discharge port, being operative to compress refrigeration fluid received via the suction port and discharged via the discharge port; a refrigerant flow line operative to carry refrigeration fluid and in fluid communication with the compressor; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a valve in the refrigerant flow line which is operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 10, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 9, wherein the valve is cycled between a fully open position and a fully closed position. Such error arose without deceptive intent.

With reference to original reissue claim 11, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 9, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to original reissue claim 12, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 9 wherein the valve is a solenoid valve. Such error arose without deceptive intent.

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With reference to original reissue claim 13, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 10, wherein the valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to original reissue claim 14, Applicant failed to claim an air conditioning or refrigeration system comprising: a compressor having a refrigeration fluid suction port and a refrigeration fluid discharge port, being operative to compress refrigeration fluid received via the suction port and discharged via the discharge port; a refrigerant flow line operative to carry refrigeration fluid and in fluid communication with the compressor; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a solenoid valve in the refrigerant flow line which is operatively connected to the controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle between a fully open position and a fully closed position to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 15, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 14, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to original reissue claim 16, Applicant failed to claim an air conditioning or refrigeration system in accordance with original reissue claim 14, wherein the solenoid valve in the fully closed position permits a limited fluid flow through the refrigerant flow line. Such error arose without deceptive intent.

With reference to original reissue claim 17, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system having a refrigerant flow line, comprising: a compressor housing comprising a compression chamber, at least one refrigerant injection port operative to pass refrigerant to the compression chamber, and at least one refrigerant discharge port operative to pass compressed refrigerant from the compression chamber; a capacity controller operative to generate a control signal corresponding to desired capacity modulation; and a valve operatively connected to the

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controller to receive capacity control signals from the controller and operative in response to capacity control signals received from the controller to cycle with a cycling time shorter than the response time of the system to modulate compressor capacity. Such error arose without deceptive intent.

With reference to original reissue claim 18, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 17, wherein the valve is cycled between a fully closed position and a fully open position.

With reference to original reissue claim 19, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 17, wherein the valve is disposed in a refrigerant flow line upstream with respect to refrigerant flow to said at least one refrigerant injection port. Such error arose without deceptive intent.

With reference to original reissue claim 20, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 17, wherein the valve is mounted to the compressor housing at the refrigerant injection port. Such error arose without deceptive intent.<sup>1</sup>

With reference to original reissue claim 21, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 17, wherein the system capacity controller comprises a microprocessor. Such error arose without deceptive intent.

With reference to original reissue claim 22, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with original reissue claim 17, wherein the valve is a solenoid valve. Such error arose without deceptive intent.

With reference to original reissue claim 23, Applicant failed to claim a capacity modulated compressor for an air conditioning or refrigeration system in accordance with

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<sup>1</sup> Original reissue claim 20 was cancelled, without prejudice to Applicant's right to pursue the subject matter of those claims in continuation, reissue, reexamination or other applications related or unrelated to this application, in the Supplemental Response filed on September 17, 2002.